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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/612,001

07/03/2003

Mark Alexander Groninger

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3364

2292

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12/10/2004

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EXAMINER

VO, ANH T N

ART UNIT

PAPER NUMBER

2861

DATE MAILED: 12/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No. **K**

10/612,001

Applicant(s)

GRONINGER ET AL.

Examiner

Anh t.n Vo

Art Unit

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 4-6 is/are rejected.
- 7) ☒ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/3/2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

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DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

The references cited on PTO 1449 have been considered

Specification

The specification has been checked to the extent necessary to determine the presence of all possible minor errors. However, the applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

CLAIM REJECTIONS

Claim Rejections - 35 USC § 112

Claim 2 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Appropriate correction or clarification is required.

In claim 2, it is not understood what the “standard actuation” and “predetermined standard” are since they are not clearly defined in the claim. Also, it is unclear how the predetermined standard can be “satisfied”.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in-

- (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
- (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claims 1-2 and 4-6 are rejected under 35 USC 102 (b) as being anticipated by Simons et al. (EP Pat. 1013453A2).

Note: The method steps are inherently taught in the apparatus device/limitations in the rejections as follow:

Simons et al. disclose in Figures 1-5 a printing apparatus comprising:

- an inkjet printhead (16) which contains a substantially closed ink duct (5) for holding ink, said duct (5) having an exit opening (22) for the ink (Figures 1-2);
- an actuation circuit (3) for actuating an electromechanical transducer (2) in such a manner that the pressure in the duct changes so that an ink drop can be ejected from the exit opening (22), the pressure change causing a deformation of the transducer (2) (Figure 2);
- a measuring circuit (7) for measuring, after the end of the actuation, an electric signal generated by the transducer (2) as a result of the deformation, wherein the printhead (16) contains a control unit (31) to adapt a subsequent actuation of the transducer (2) to the measured signal (Figure 3, column 4, lines 16-30); and

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- wherein the actuation circuit (3) comprises a pulse generator (4) communicating with the transducer (2) through a switch (8) and the measuring circuit (7) comprises the control unit (31) communicating with said transducer (2) through said switch (8) (Figure 3).

Citation of Pertinent Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art reference (US Pat. 4,743,924; US Pat. 4,498,088; US Pat. 4,625,220; US Pat. 6,435,772) cited in the PTO 892 form show an ink jet printing apparatus which are deemed to be relevant to the present invention. This reference should be reviewed.

Allowable Subject Matter

Claim 3 would be allowable if rewritten to include all of the limitations of the base claim and any intervening claims. This claim would be allowable because none of the prior art references of record discloses a method of controlling an inkjet printhead with a substantially closed duct comprising a step of analyzing of the measured signal to determine a value for the electromechanical coefficient of expansion of the transducer, a negative pressure in the ink duct, the ink level in an ink reservoir connected to the ink duct, the viscosity of the ink, the temperature of the ink, the temperature of the transducer in the combination as claimed.

CONCLUSION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Anh Vo. whose telephone number is (571) 272-2262.


The examiner can normally be reached on Tuesday to Friday from 8:00 A.M. to 5:00 P.M..

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The fax number of this Group 2800 is (703) 872-9306.



AN H.T.N. VO
PRIMARY EXAMINER

December 8, 2004